

Impacts of climate change on indirect human exposure to pathogens and chemicals from agriculture

Author(s): Boxall A, Hardy A, Beulke S, Boucard T, Burgin L, Falloon P, Haygarth P,

Hutchinson T, Kovats S, Leonardi G, Levy L, Nichols G, Parsons S, Potts L,

Stone D, Topp E, Turley D, Walsh K, Wellington E, Williams R

Year: 2010

Journal: Ciencia & Saude Coletiva. 15 (3): 743-756

Abstract:

Climate change is likely to affect the nature of pathogens/ chemicals in the environment and their fate and transport. We assess the implications of climate change for changes in human exposures to pathogens/chemicals in agricultural systems in the UK and discuss the effects on health impacts, using expert input and literature on climate change; health effects from exposure to pathogens/chemicals arising from agriculture; inputs of chemicals/pathogens to agricultural systems; and human exposure pathways for pathogens/chemicals in agricultural systems. We established the evidence base for health effects of chemicals/pathogens in the agricultural environment; determined the potential implications of climate change on chemical/pathogen inputs in agricultural systems; and explored the effects of climate change on environmental transport and fate of various contaminants. We merged data to assess the implications of climate change in terms of indirect human exposure to pathogens/chemicals in agricultural systems, and defined recommendations on future research and policy changes to manage adverse increases in risks.

Source: Ask your librarian to help locate this item.

Resource Description

Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: M

audience to whom the resource is directed

Policymaker, Researcher

Exposure: M

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Quality

Food/Water Quality: Chemical, Pathogen

Climate Change and Human Health Literature Portal

Geographic Feature: M

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country: United Kingdom

Health Impact: M

specification of health effect or disease related to climate change exposure

Cancer, Developmental Effect, Infectious Disease, Neurological Effect

Developmental Effect: Reproductive

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Cryptosporidiosis

Foodborne/Waterborne Disease (other): Mycobacterium

Vectorborne Disease: General Vectorborne

Population of Concern: A focus of content

Population of Concern: M

populations at particular risk or vulnerability to climate change impacts

Children, Pregnant Women

Resource Type: ™

format or standard characteristic of resource

Review

Timescale: M

time period studied

Time Scale Unspecified